Decision rule for conformity statement

At a customer's request, a conformity statement is made based on the measurement results obtained during calibration. The conformity statement relates to compliance with a specification. The following sequence is used to determine the manufacturer's specification:

1. Value given by the customer. In case that no value is given by the customer
2. Value on the name plate of the calibration object (manufacturer specification). In case that no value can be found on the name plate of the calibration object
3. Value found in data sheets and operating manuals from the manufacturer. The document that contains the specification is listed in the calibration certificate.

The source and the specification determined from it are specified on the calibration certificate.

Conformity
[1] Conforming (the specification is met at this point)
[2] Non-conforming (the specification is not met at this point)

Halstrup-walcher GmbH manufactures precision measuring instruments with very small pressure measuring ranges. The smallest achievable expanded measurement uncertainty is in the order of magnitude of the specification. Since (even incorrect) rejections would therefore occur frequently and this problem cannot generally be remedied by repair/adjustment, simple acceptance is applied for low pressures (safety band between tolerance level and acceptance level = 0).
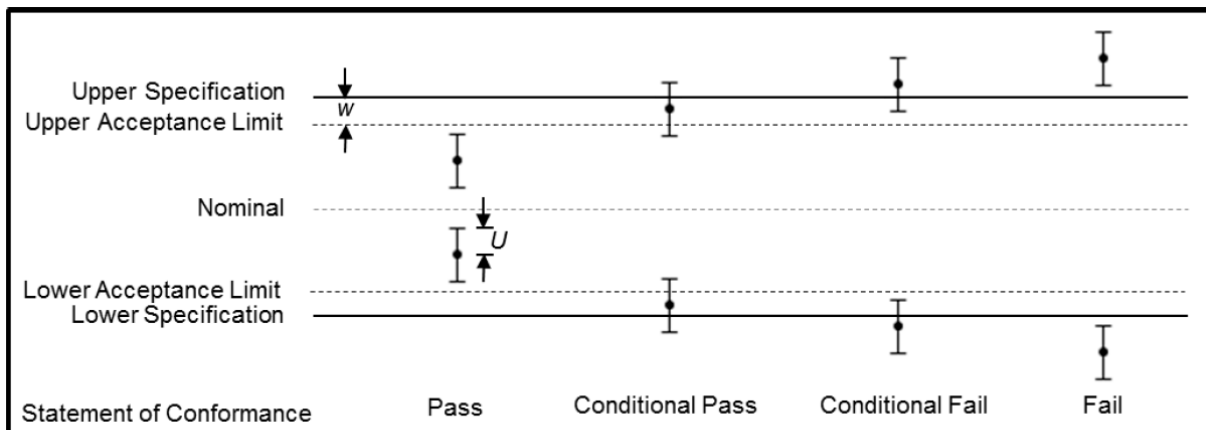
The conformity statement is specified in the following form and the values are marked accordingly in the measurement value table:
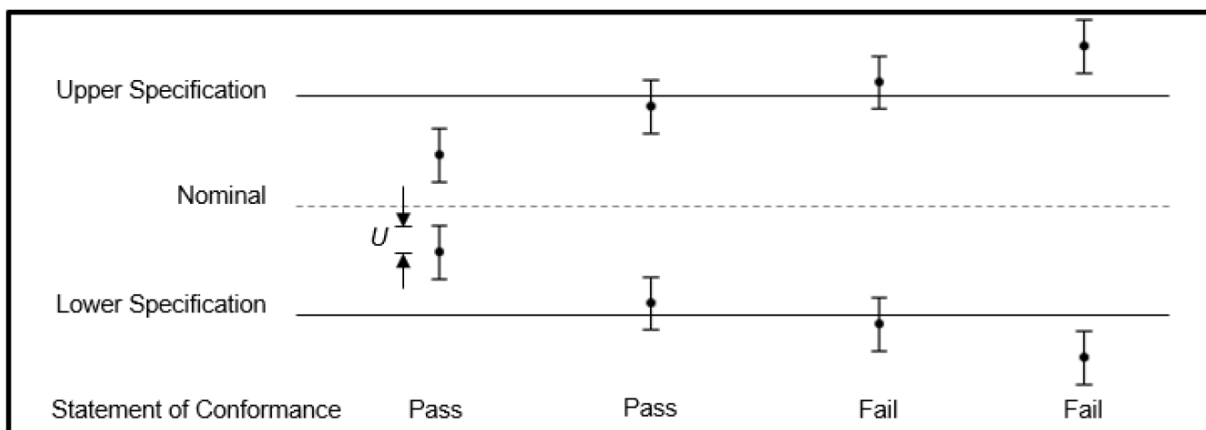
U = 95% expanded measurement uncertainty

If the ratio between the achievable measurement uncertainty and the permissible maximum deviation of the test item allows it, a conformity statement with a confidence level of 95% is issued (safety margin = 0.83*U; acceptance level = tolerance level -0.83*U). This is usually the case when the permissible maximum deviation of the calibration object is significantly greater than the expanded measurement uncertainty U.

The conformity statement is specified in the following form and the values are marked accordingly in the measurement value table:

U = 95% expanded measurement uncertainty